

PRELIMINARY AMENDMENT  
U.S. Appln. No. 09/848,503

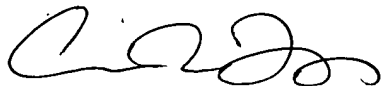
**REMARKS**

Entry and consideration of this Amendment are respectfully requested. By this Amendment, Applicant has amended the specification and claims 1-15 to improve clarity.

It is respectfully submitted that the Preliminary Amendment places the above-identified application in even better condition for initial examination. It is also respectfully submitted that the instant Amendment does not introduce new matter into the application.

If any issues exist which the examiner feels may best be resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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**APPENDIX**  
**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE SPECIFICATION:**

**The specification is changed as follows:**

**Page 6, fourth full paragraph:**

Also, the main board [basically has] includes an MPEG TS decoder 328, an MPEG video decoder 330, an audio decoder 332, a TS switch 326, a first analog signal switch 334 and a second analog signal switch 336.

**The paragraph bridging pages 6 and 7:**

The MPEG TS decoder 328 can demultiplex or decode a TS output from the TS switch 326, and can decode a TS input from the channel decoder 324. Since an HDTV [basically has] includes a channel decoder for receiving a ground wave digital TV signal on the main board, the HDTV can receive and display a ground wave HDTV signal.

**Page 7, fifth full paragraph:**

The extension board of FIG. 4 [basically has] includes a PCI bridge unit 414, a program memory 416, and an independent module 420, and additionally has a PCI connector 412, a TS connector 418, an analog audio/video connector 422, and a selection signal connector 424 for connecting signals of each block.

**Page 8, fourth full paragraph:**

The extension board of FIG. 6 [basically has] includes a PCI bridge unit 614, a CPU 616, a program memory 618, and an independent module 622, and additionally has a PCI connector 612, a TS connector 620, an analog audio/video connector 624, and a selection signal connector 626, for connecting signals of each block.

**Page 9, fifth full paragraph:**

Then, the main board CPU 314 transmits a command to the first-type or the second-type extension board, as shown in FIGS. 4 and 6, so that the extension board can execute corresponding functions in step 750.

**Page 10, third full paragraph:**

Next, the main board CPU 314 checks the type of the extension board. By doing so, the main board CPU 314 can determine whether the extension board transmits a broadcasting channel in an MPEG TS or in an analog audio/video signal. Therefore, if a TS is received, the main board CPU 314 operates the MPEG TS decoder 328, the MPEG video decoder 330, and the audio decoder 332 in the main board to display the TS on the screen, and if an analog audio/video signal is received, displays an audio/video signal in the form of an analog signal on the screen in step 760.

**IN THE CLAIMS:**

**The claims are amended as follows:**

1. (Amended) A multimedia device in a multimedia system, the multimedia device comprising:

a backplane [unit having] including a plurality of connectors provided thereon, each of the connectors having a predetermined signal standard;

[a main board unit, which is plugged into a connector of the backplane unit, for processing an MPEG transport stream input from an extension board into a predetermined signal form, and selecting an extension board; and]

an extension board, which is [attachable to any] electrically coupled to a first one of the connectors of the backplane, [excluding the connector into which the main board unit is plugged,] for transmitting an MPEG transport stream processed by an independent module of the extension board [to the main board unit] when the extension board is selected [by the main board unit]; and

a main board unit, which is electrically coupled to a second one of the connectors of the backplane, for processing the MPEG transport stream transmitted by the extension board into a predetermined signal form, and selecting the extension board.

2. (Amended) A multimedia device in a multimedia system, the multimedia device comprising:

a combination main board unit[, wherein] including a backplane formed of a plurality of connectors, each of the connectors having a predetermined signal standard, and a main board for

processing a multimedia input signal into a predetermined signal [and selecting an extension board are combined], wherein the backplane and the main board are integrally formed as a single unit; and

an extension board, which is attachable to any one of the connectors of the backplane, separately from the combination main board, for performing extended functions, [according to the main board's selection] the extension board transmitting the MPEG transport stream when the extension board is selected by the main board.

3. (Amended) The multimedia device of either claim 1 or 2, wherein each [connector] of the connectors of the backplane [has lines for] includes:

a transmission signal line for a transmission signal for transmitting a control command of the main board to the extension board;

an MPEG transport stream line for an MPEG transport stream;

an analog audio/video signal line for an analog audio/video signal; and

a selection signal line for a selection signal for selecting [an] the extension board.

4. (Amended) The multimedia device of either claim 1 or 2, wherein the main board or the combination main board comprises:

an MPEG [TS] transport stream decoder for decoding [a receiving] the MPEG [TS] transport stream into an MPEG video bit stream and an audio bit stream;

an MPEG video decoder for decoding the MPEG video bit stream generated in the MPEG [TS] transport stream decoder into an analog video signal;

an audio decoder for decoding the audio bit stream generated in the MPEG [TS] transport stream decoder into an analog audio signal; and

a control unit for selecting one of the extension boards, operating the MPEG TS decoder, the audio decoder, and the MPEG video decoder if the MPEG TS data is input from the extension board, and selectively outputting a multimedia signal.

5. (Amended) The multimedia device of either claim 1 or 2, wherein the extension board includes a module unit for transmitting a [TS] transport stream or an analog audio/video signal to the backplane if the extension board is selected by a control command from the main board or the backplane.

6. (Amended) The multimedia device of either claim 1 or 2, wherein the extension board comprises:

a memory for storing a program to [execute in] be executed by the main board or the backplane; and

a module unit for transmitting the [TS] transport stream or analog audio/video signal to the backplane or main board if the extension board is selected by a control command from the main board, according to the program stored in the memory.

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7. (Amended) The multimedia device of either claim 1 or 2, wherein the extension board comprises:

a module unit for transmitting a [TS] transport stream or analog audio/video signal to the backplane or the main board according to the control command;

an extended control unit for receiving a command from the main board if the module unit is selected [in] by the main board, controlling the module unit, and then transmitting the result of executing the command to the main board; and

a memory for storing a program to be executed by the extended control unit.

8. (Amended) The multimedia device of claim 7, wherein if an operation command from the main board is received, the extended control unit transmits menu items in the form of an HTML document to the main board to display the menu items on a screen, and if a menu item displayed is selected [in] by the main board, the extended control unit executes a command corresponding to the selected menu item.

9. (Amended) The multimedia device of any one of claims 5 through 7, wherein if the main board does not select the module unit, the module unit does not transmit a [TS] transport stream or an analog audio/video signal.

10. (Amended) A method for extending functions of a multimedia device having a backplane, a main board, and at least one extension [boards plugged into] board which may be

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electrically coupled to the backplane, the method [for extending functions] comprising the steps of:

- (a) determining whether [or not] the extension [boards are plugged into] board is electrically coupled to one of a plurality of connectors of the backplane[,] by sequentially scanning the connectors [plugged on the backplane];
- (b) analyzing [the characteristic of an] characteristics of the extension board, if it is determined in the step (a) that the extension board is [plugged into] electrically coupled to one of the connectors the backplane;
- (c) performing functions according to the characteristics of the extension board analyzed in the step (b); and
- (d) displaying a signal corresponding to the function of the extension board performed in the step (c), on a screen.

11. (Amended) The method for extending functions of claim 10, wherein the step (c) further comprises the steps of:

[the extension board] receiving at the extension board an operation command transmitted to the extension board in the form of a menu[, if an operation command is transmitted to the extension board]; and

displaying the received menu on the screen by a web browser, and performing a command corresponding to the displayed menu.



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12. (Amended) A multimedia device in a multimedia system, the multimedia device comprising:

a backplane unit [formed of] including a plurality of connectors, each of the connectors having a predetermined signal standard; and

a main board unit, which is [plugged into a connector] electrically coupled a first one of the connectors of the backplane unit, for processing an MPEG transport stream, which is input from [a] an extension board [of another connector] electrically coupled to a second one of the connectors, into a predetermined signal form, and selecting the extension board from which the MPEG transport stream was input.

13. (Amended) The multimedia device of claim 12, wherein each [connector] of the connectors of the backplane [has lines for] unit includes:

a transmission signal line for a transmission signal for transmitting a control command of the main board to the extension board;

an MPEG transport stream line for an MPEG transport stream;

an analog audio/video signal line for an analog audio/video signal; and

a selection signal line for a selection signal for selecting [an] the extension board.

14. (Amended) [A] An extension board for multimedia device [having an extension board], which is detachably [plugged into] coupled to one of a plurality of connectors [provided

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to] of a backplane and extends functions different from the functions of a main board, [wherein]  
the extension board comprises:

a module unit for driving a function extension module and generating a transport stream,  
and selectively transmitting the transport stream, which is generated in the function extension  
module, or an analog audio/video signal to the backplane according to a control command;

an extended control unit for receiving a control command from the main board if the  
module unit is selected in the main board, processing the module unit, and transmitting the result  
of executing the command to the main board; and

a connector unit for connecting each signal of the module unit and the extended control  
unit.

15. (Amended) The [multimedia device] extension board of claim 14, wherein if an  
operation command from the main board is received, the extended control unit transmits menu  
items to the main board to display the menu items on a screen, and if a menu item displayed is  
selected in the main board, executes a command corresponding to the selected menu item.